ICFA Panel on Advanced & Novel Accelerators

Highlights of Activities

Presented by Wim Leemans

Chair, ICFA-ANA Panel

SLAC, February 15, 2002

Outline

- Website: http://icfa.lbl.gov/icfapanel.html
- Workshop endorsement
- JSPS funding

• E stablished new website N h <u>ttp://icfa.lbl.gov/icfapanel.html</u>

NM ission Statement

NP anel Members List

NL inks to advanced accelerator research activities worldwide

NL ists of past workshops and conferences

NNe wsletter:

o Special Issues of Workshop Proceedings:

§ W orkshop on Polarized RF Guns for Linear Colliders, Fermilab,

4/18 - 20,2001

§ W orskhop on 2nd Generation Laser & Plasma Accelerators, Presqu**Q**e de Giens, France, June 24 −29, 2001.

NUse ful & Related Links NP anel Meeting Minutes

NS ent ICFA Panel announcement to APS-DPB, APS-DPP, and counterpart organizations in Europe and Japan to advertise Panel website and solicit input to newsletter

• W orkshops Endorsement

ICFA endorsed workshops

Ñ P olarized RF Guns for Linear Colliders, Fermilab, April 18—20, 2001 Ñ J oint Sponsorship with ICFA Beam Dynamics Panel of Advanced Accelerator Workshop on ĈThe Physics and Applications of High Brightness Electron Beams Ó Sardinia, Italy, July 2002

N W orkshop on 2nd Generation Laser & Plasma Accelerators Presqu**Q** e de Giens, France, June 24—29, 2001

Panel endorsed workshops, requesting ICFA endorsement:

No uantum Aspects of Beam Physics Workshop, Hiroshima, Japan, Jan. 6—11, 2003.

NAd vanced ICFA Beam Dynamics Workshop on Laser-Beam Interactions, Oxford University, July 7 — 1, 2003

NW orkshop on Laser and Plasma Accelerators, Cinque Terre, Italy, Sep. 29-Oct.3, 2003

3rd InternationalWorkshop on Quantum Aspects of Beam Physics 2003

- Continues tradition of previous workshops (Monterey, 1998 and Capri, 2000)
- Topics:
 - Quantum Fluctuations in Beam Dynamics
 - Photon-Electron Interaction in Beam Production, Cooling, Monitoring
 - Physics of Condensed Beams
 - Beam Phenomena under strong EM fields
 - Astro-beam Physics and Laboratory Astrophysics
 - Quantum Methodologies in Beam Physics
- When: Jan. 6 11, 2003
- Where: Hiroshima (Japan)
- Requesting joint endorsement of Beam Dynamics and ANA Panel
- Contact Person: Pisin Chen

3rd International Workshop on Laser-Beam Interactions 2003

- Continues tradition of previous workshops (Tokyo 1999, Brookhaven, 2001)
- Topics:
 - Generation of femtosecond x-rays
 - High Field Science
 - Ultra-fast pump-probe experiments
 - Ultra-fast x-ray microscopy
 - Non-linear effects in laser-Compton scattering
 - High quality electron beams
 - High quality, high power laser beams
 - Generation of polarized gamma-rays and positrons
 - Gamma-gamma colliders
 - Laser cooling of accelerator beams
 - Beam diagnosis
 - Laser acceleration
 - Laser induced radiation from electron beams
 - Control, manipulation and microbunching of e-beams by lasers
- When: Jul. 7- 11, 2003
- Where: Oxford University (UK)
- Contact Person(s): Ilan Ben-Zvi, Peter Norreys

Laser and Plasma Accelerator Workshop 2003

- Continues tradition of Kardamyli (1993, 1995, 1999) and Giens (2001) workshop on Plasma Accelerators
- Themes:
 - Laser guiding and electron acceleration
 - Control and quality of accelerated e-beams
 - Ions and other accelerated particles
 - Gamma-rays and nuclear activation reactions
 - Numerical simulations
- When: Sep. 29- Oct. 3, 2003
- Where: Cinque Terre (La Spezia, Italy)
- Contact Person: Danilo Giuletti

Organized Tutorial Session for NPSS Snowmass Technology Course at Snowmass 2001

July 7, 2001, Advanced Acceleration Course

- •"Particle beam driven advanced accelerator technology", James Rosenzweig, UCLA
- •"Laser driven plasma and vacuum based accelerators", Michael Downer UTexas at Austin
- "High power laser systems for applications in advanced accelerator research", Csaba Tóth, LBNL

Organizer: W. Leemans for ICFA Panel

Work on trilateral funding proposal with Japan Society for Promotion of Science (JSPS)

- Brought to attention of Panel by M. Uesaka (Tokyo Univ., Japan)
- Cooperative science program: Inter Research Centers Cooperative Program (ICRP)
- Objective: promote scientific collaboration between Japan and other countries
- JSPS funds equivalent to \$75.2 K/yr for 3 years. Trying to coax NSF,
 EU to match this
- Can be used for international collaborative research projects in field of novel and advanced accelerators + travel expenses to ICFA endorsed workshops
- Applications directly to funding agencies
- Panel role limited to advertising sollicitations for funds
- Details to be worked out by funding agencies
- Contacting R. Eisenstein from NSF and Ph. Busquin from European Commission